

REMARKS

By the *Office Action* of 10 January 2005, the *Specification* is objected to, Claims 1-21 are pending, wherein Claims 1-6, and 8-21 are rejected and Claim 7 is objected to.

Applicant thanks the Examiner for the indication that Claim 7 would be allowable if rewritten into independent form.

No new matter is believed introduced by the present *Response and Amendment*. It is respectfully submitted that the present Application is in condition for allowance for the following reasons.

1. The Specification

The Examiner objected to the reference to the Claims on page 2 of the *Specification*. Applicant deletes the objected to paragraphs, and inserts two new paragraphs, and respectfully submits that the addition of, and amendments to, paragraphs of the *Specification* as provided herein overcomes the Examiner's objections.

2. Claim Rejections under 35 U.S.C. § 112

Claims 7, 14-15 and 19 are rejected under 35 U.S.C § 112 ¶ 2, as being indefinite for failing to particularly point out and distinctly claim the subject matter regarded as the invention. Applicant amends Claims 7, 14, and 19 as kindly suggested by the Examiner. Claim 15, a dependent Claim which depends on Claim 14, is indirectly amended by the amendment to Claim 14.

3. Claim Rejections under 35 U.S.C. § 102

Claims 1, 2, and 6 are rejected under 35 U.S.C. § 102(b) as being anticipated by Steinmann (U.S. Patent No. 4,419,081). Applicant respectfully traverses this ground of rejection. Steinmann does not disclose *puzzle pieces*, nor does it disclose positioning an element with respect to a border having a predetermined shape.

Steinmann discloses a set of mathematical cards or blocks, wherein center indicia and edge indicia are printed on the two opposed major faces of every card or block. Furthermore, every card or block comprises edge alignment elements for ensuring that the cards or blocks get properly aligned in edge to edge contact. The cards or blocks are used for the purpose of visualizing mathematical operations.

The disclosed cards or blocks are to be regarded as a mathematical teaching/learning aid, not as pieces of a puzzle. A mutual position of a number of cards or blocks is determined by the mathematical expression that needs to be illustrated, wherein the edge alignment elements only play a role in obtaining a proper alignment of the cards or blocks.

On the basis of the foregoing, it is respectfully submitted that Steinmann does not disclose puzzle pieces. Moreover, Steinmann does not relate to elements which are designed to be positioned with respect to a border having a predetermined shape with a defined upper side and a defined under side, and, consequently, features of the indicia of the blocks or cards are not related to a possible orientation of the blocks or cards with respect to such a border. In particular, it is not possible to determine the value of N of the cards or blocks, which is the number of possible orientations with respect to the border.

In view of the fact that Steinmann does not relate to puzzles, nor puzzles having a border having a predetermined shape, it is submitted that Claim 1 is novel over Steinmann. Claims 2 and 6, being dependent from Claim 1, are similarly submitted as novel over Steinmann.

Claims 8, 10-13, and 16-18 are rejected under 35 U.S.C. § 102(b) as being anticipated by Williams (U.S. Patent No. 3,547,444). Applicant respectfully traverses this ground of rejection.

Williams discloses pieces which are intended to be used for the purpose of playing a game. These pieces are not to be regarded as parts of a puzzle or even a puzzle game. Like Steinmann, Williams is silent on the topic of positioning an element with respect to a border having a predetermined shape. Therefore, it can not be said that orientations of the marks of the pieces according to Williams correspond to possible orientations of the puzzle piece with respect to the border. Hence, Claim 8 is not applicable to the Williams' pieces, and Claim 8 is novel over it. As Claims 10-13 and 16-18 are dependent from Claim 8, it is respectfully submitted that Claims 10-13 and 16-18 are novel with respect to Williams as well.

Claims 8-9, 17, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Wadsworth (U.S. Patent No. 3,964,749). Applicant respectfully traverses this ground of rejection.

Wadsworth discloses puzzle pieces which are designed to be positioned with respect to a border having a predetermined shape with a defined upper side and under side. It may even be so that some of the disclosed puzzle pieces comprise at least two marks having a defined upper side and under side. Such puzzle pieces are shown in Figures 6 and 7. The marks, however, do not have different orientations which correspond to possible orientations of the puzzle piece with respect to the border. Instead, the positions of the marks of one puzzle piece are interrelated, as the marks are part of one and the same picture. Hence, all marks of one puzzle piece have the same orientation.

For sake of completeness, it is noted that the pentomino pieces as shown in Figure 3 only bear one mark. Therefore, the known pentomino pieces are outside of the scope of Claim 8 (and of Claim 9).

In view of the fact that Wadsworth does not disclose a puzzle piece being provided with at least two marks having a defined upper side and under side, and having different orientations which correspond to possible orientations of the puzzle piece with respect to the border, it is respectfully submitted that Claim 8 is novel over Wadsworth. Furthermore, it is respectfully submitted that Claims 9, 17 and 21 are novel over Wadsworth, as these claims are dependent from Claim 8.

4. Claim Rejections under 35 U.S.C. § 103

Claims 3-5 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Steinmann in view of Williams. Claims 14 and 15 are rejected under 35 U.S.C. § 103(a) as being unpatentable under Williams in view of Mitchell (U.S. Patent No. 5,368,301). Additionally, Claims 19 and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Williams.

Applicant respectfully traverses these rejections. Applicant respectfully submits that none of these cited references discloses, teaches, or suggests a limitation of Claims 3-5, 14-15, and 19-20.

It is respectfully submitted that independent Claims 1 and 8 are non-obvious over each of the cited prior art documents, and also with respect to any possible combination of these prior art references. None of the references disclose a need of recording the configuration of puzzle pieces which are positioned inside a defined border. Consequently, none of the documents discloses all of the specific measures of the invention as recited in the claims.

Also, the fact that Steinmann discloses a card or block which happens to have four equal marks while being rotation symmetrical in four ways and a card or block which happens to have two pairs of equal marks while being rotation symmetrical in two ways does not lead to the invention as recited in the Claims, as these marks are not presented as marks which may be useful in characterizing a specific orientation of the card or block. Only in hindsight, when a person knows about the present invention as recited in independent Claims 1 and 8 will he or she be capable of recognizing that the configuration of the marks of some of the cards or blocks known from Steinmann seems to have a similar pattern as the configuration of the marks according to this invention.

5. Allowable Subject Matter

Applicant thanks the Examiner for the conditional allowance of Claim 7.

6. Fees

There are no Claim fees believed due, as the total remaining Claims upon entrance of this *Response and Amendment* is the same as the amount filed with the original application – twenty-one claims.

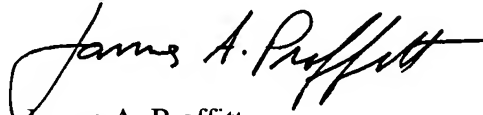
Further, this *Response and Amendment* is being filed within six (6) months of the *Office Action*, and an extension of time fee of \$510 for a small entity is enclosed for a three (3) month extension.

Nonetheless, should any additional fees indeed be due, authorization to charge deposit account No. 20-1507 is hereby expressly given.

CONCLUSION

By the present *Response and Amendment*, the Application has been placed in full condition for allowance. Accordingly, Applicant respectfully requests early and favorable action. Should the Examiner have any further questions or reservations, the Examiner is invited to telephone the undersigned attorney at 404.885.3538.

Respectfully submitted



James A. Proffitt
Registration No. 54,837

Troutman Sanders LLP
Bank of America Plaza
600 Peachtree Street, N.E., Suite 5200
Atlanta, Georgia 30308-2216
United States
Phone: 404.885.2773
Fax: 404.962.6849